

Higher National Unit Specification

General information for centres

Unit title: Supporting Users and Troubleshooting Desktop Applications

Unit code: DM34 34

Unit purpose: This Unit is designed to introduce candidates to the role of a desktop application support technician involved in supporting users and troubleshooting desktop applications on a client operating system. It is intended for candidates undertaking an HN in Computing or a related area who require a broad knowledge of client operating systems. On completion of the Unit the candidate should be able to:

1. Configure and troubleshoot applications
2. Resolve issues related to usability and application customisation
3. Configure and troubleshoot network connectivity and security settings for applications

Credit points and level: 1 HN Credit at SCQF level 7: (8 SCQF credit points at SCQF level 7*)

**SCQF credit points are used to allocate credit to qualifications in the Scottish Credit and Qualifications Framework (SCQF). Each qualification in the Framework is allocated a number of SCQF credit points at an SCQF level. There are 12 SCQF levels, ranging from Access 1 to Doctorates.*

Recommended prior knowledge and skills: Access to this Unit will be at the discretion of the Centre. There are no specific requirements but candidates would benefit from knowledge of computer hardware and software. This may be demonstrated by the possession of units such as *DG0K33 Hardware Concepts* and/or *DF9L33 Operating System Concepts* or *DH33 34 Computer Operating Systems 1* and/or *DM2X 35 Computer Operating Systems 2*. Alternatively, candidates might provide evidence of informal prior learning or experience, or the achievement of commercially recognised qualifications.

Core skills: There may be opportunities to gather evidence towards core skills in this Unit, although there is no automatic certification of core skills or core skills components.

Context for delivery: If this Unit is delivered as part of a group award, it is recommended that it should be taught and assessed within the subject area of the group award to which it contributes. If this Unit is to be used in a vendor based environment, it is recommended that it also be delivered in tandem with the HN Unit DM35 34: Supporting Users and Troubleshooting a Desktop Operating System.

General information for centres (cont)

Assessment: Evidence for the knowledge and/or skills for the Unit must be produced using a set of objective response questions to assess candidates' knowledge and understanding. This must be administered as a single end-of-unit test.

Candidates must answer at least 60% of the questions correctly in order to obtain a pass.

Testing must take place in a closed-book environment where candidates have no access to books, handouts, notes or other learning material. Testing can be done in either a machine-based or paper-based format and must be invigilated by a tutor or mentor. There must be no communication between candidates and communication with the invigilator must be restricted to matters relating to the administration of the test.

If a candidate requires to be reassessed, a different selection of questions must be used. Candidates must answer at least 60% of the reassessment questions correctly in order to obtain a pass.

If an outcome has a practical component, this must be assessed by having the candidate use and complete a logbook to record the practical tasks successfully completed. The logbook can be produced by the candidate in paper or electronic form and **must** be authenticated by the tutor or mentor.

For some outcomes only a sample of the practical tasks needs to be completed and recorded for assessment purposes, e.g. three out of five. This is clearly indicated in the logbook instructions for the outcomes involved. Where this occurs, tutors must inform candidates of the tasks to be completed.

If a candidate requires to be reassessed, a different selection of practical components must be used. At least two of the practical components in the reassessment must be different from those used in the original logbook.

Higher National Unit specification: statement of standards (cont)

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The sections of the Unit stating the Outcomes, knowledge and/or skills, and evidence requirements are mandatory.

Where evidence for Outcomes is assessed on a sample basis, the whole of the content listed in the knowledge and/or skills section must be taught and available for assessment. Candidates should not know in advance the items on which they will be assessed and different items should be sampled on each assessment occasion.

Outcome 1

Configure and troubleshoot applications

Knowledge and/or skills

- ◆ Configure a range of end-user desktop applications and apply problem solving techniques to these end-user desktop applications
- ◆ Configure the standard, security and other customisable options in an Internet browser and apply problem solving techniques to that Internet browser application
- ◆ Configure protocols, security and standard installation settings in an e-mail application and apply problem solving techniques to that e-mail application
- ◆ Configure file system access and security related settings in the operating system to support applications

Evidence requirements

Assessment Task 1 - Objective Response Test

The assessment of the knowledge/skills of Outcome 1 will be examined by 16 MCQ (multiple choice questions) and/or MRQ (multiple response questions), four being derived from **each** of the four sections listed above. The questions must cover **each** of the knowledge and skills points above. The assessment must be undertaken in conjunction with the objective assessments for Outcomes 2 and 3 at the end of this unit. The conditions of assessment are outlined in Outcome 3.

Assessment Task 2 - Practical Activity Logbook

The logbook must record successful completion of **at least three of the four** tasks listed below, including **at least two of the first three tasks**. The tasks to be completed must be selected by the tutor from the following –

1. Configure a range of end-user desktop applications and apply problem solving techniques to these end-user desktop applications
 - 1.1 A record of the tasks carried out by the candidate in troubleshooting applications (eg command line interfaces, program operability in different environments and operating systems security and compatibility options.

Higher National Unit specification: statement of standards (cont)

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2. Configure the standard, security and other customisable options in a Internet browser and apply problem solving techniques to that Internet browser application
 - 2.1 A record of the tasks carried out by the candidate in configuring and troubleshooting Internet browser settings including General, Security, Connectivity, Content, Program and the customisation of an Internet browser application.
3. Configure protocols, security and standard installation settings in an e-mail application and apply problem solving techniques to that e-mail application
 - 3.1 A record of the tasks carried out by the candidate in configuring an e-mail application for e-mail settings (security, preferences, tools and interface), protocols (IMAP, HTTP and POP3) newsgroup settings and storage of data.
4. Configure file system access and security related settings in the operating system to support applications
 - 4.1 A record of the tasks carried out by the candidate in configuring the operating system to support an application, file system access and file permission problems.
 - 4.2 A record of the tasks carried out by the candidate in configuring access and troubleshooting application access on multiuser and multiboot computers.

Practical activity logs should be based on a pro-forma given to a candidate, but must as a minimum be properly titled with the candidate's name and date, and signed by the assessor confirming that each task is the candidate's own work.

For Outcome 1 a sample of the practical tasks needs to be completed and recorded for assessment purposes, ie three out of four. The assessor should clearly indicate in a candidate logbook the work to be undertaken by the candidate. If a candidate requires to be reassessed, a different selection of practical components must be used. At least two of the practical components in the reassessment must be different from those used in the original logbook.

Assessment guidelines

It is suggested that all the above concepts be presented and explained within the context of current real-world practice and applications.

Outcome 2

Resolve issues related to usability and application customisation

Knowledge and/or skills

- ◆ Resolve errors related to end-user application support features
- ◆ Resolve errors related to Internet browser support features
- ◆ Resolve errors related to e-mail application support features
- ◆ Resolve errors related to operating system features
- ◆ Customise an end-user application and resolve errors related to the customised settings
- ◆ Customise Internet browser settings for specific users and resolve errors related to the customised settings
- ◆ Customise settings in an e-mail application and resolve errors related to the customisation
- ◆ Customise operating system settings to support a range of applications and resolve errors related to the operating system support of these applications

Higher National Unit specification: statement of standards (cont)

Unit title: Supporting Users and Troubleshooting Desktop Applications

Evidence requirements

Assessment Task 1 - Objective Response Test

The assessment of the knowledge/skills of Outcome 2 will be examined by 24 MCQ (multiple choice questions) and/or MRQ (multiple response questions), three being derived from **each** of the eight sections listed above. The questions must cover **each** of the knowledge and skills points listed above. The assessment must be undertaken in conjunction with the objective assessments for Outcomes 2 and 3 at the end of the unit. The conditions of assessment are outlined in Outcome 3.

Assessment Task 2 – Practical Activity Logbook

The logbook for Outcome 2 must record successful completion of **at least five of the eight** tasks listed below, including **at least three of the first five tasks**. The tasks to be completed must be selected by the tutor from the following –

1. Resolve errors related to end-user application support features
 - 1.1 A record of the tasks carried out by the candidate in configuring end-user applications and interpreting error messages received during or after installation.
2. Resolve errors related to Internet browser support features
 - 2.1 A record of the tasks carried out by the candidate in configuring an Internet browser and interpreting error messages received during usage.
3. Resolve errors related to e-mail support features
 - 3.1 A record of the tasks carried out by the candidate in configuring an e-mail application and interpreting error messages during usage.
4. Resolve errors related to operating system features
 - 4.1 A record of the tasks carried out by the candidate in configuring operating system features and interpreting error messages during and after installation.
5. Customise an end-user application and resolve errors related to the customised settings
 - 5.1 A record of the tasks carried out by the candidate in customising end-user applications, menus, icons, toolbars, personalising application features and interpreting error messages received during customisation.
 - 5.2 A record of the tasks carried out by the candidate of managing e-mail data including configuring, importing, exporting and repairing corrupted data.
6. Customise Internet browser settings and resolve errors related to the customised settings
 - 6.1 A record of the tasks carried out by the candidate in customising an Internet browser and interpreting any error messages received during the customisation.
7. Customise settings in an e-mail application and resolve errors related to customisation
 - 7.1 A record of the tasks carried out by the candidate in customising an e-mail application and interpreting any error messages received during the customisation.

Higher National Unit specification: statement of standards (cont)

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8. Customise operating system settings to support a range of applications and resolve errors related to the operating system support of these applications
- 8.1 A record of the tasks carried out by the candidate in customising the operating system to support applications. Customising the menu, icons, toolbars, fonts, regional and folder settings and interpreting any error messages received during the customisation.

Practical activity logs should be based on a pro-forma given to a candidate, but must as a minimum be properly titled with the candidate's name and date, and signed by the assessor confirming that each task is the candidate's own work.

For Outcome 2 a sample of the practical tasks needs to be completed and recorded for assessment purposes, ie five out of eight. The assessor should clearly indicate in a candidate logbook the work to be undertaken by the candidate. If a candidate requires to be reassessed, a different selection of practical components must be used. At least two of the practical components in the reassessment must be different from those used in the original logbook.

Assessment guidelines

It is suggested that all the above concepts be presented and explained within the context of current real-world practice and applications.

Outcome 3

Configure and troubleshoot network connectivity and security settings for applications

Knowledge and/or skills

- ◆ Troubleshoot name resolution problems
- ◆ Troubleshoot network adapter configuration problems
- ◆ Troubleshoot LAN and Routing and Remote Access configuration problems
- ◆ Troubleshoot network connectivity problems
- ◆ Troubleshoot problems with locally attached devices
- ◆ Troubleshoot problems related to security permissions
- ◆ Respond to security incidents
- ◆ Manage application security settings

Evidence requirements

Assessment Task 1 - Objective Response Test

The assessment of the knowledge/skills of Outcome 3 will be examined by 24 MCQ (multiple choice questions) and/or MRQ (multiple response questions), **three** being derived from **each** of the eight sections listed above. The questions must cover **each** of the knowledge and skills points listed above.

Higher National Unit specification: statement of standards (cont)

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The assessment must be undertaken in conjunction with the objective assessments for Outcomes 1 and 2 at the end of this unit. The assessment must be undertaken in supervised conditions and is closed book. This will consist of 64 questions which will be presented in supervised conditions and is closed book. A candidate should complete this assessment within two hours. Candidates may not bring to the assessment event any notes, textbooks, handouts or other material (calculators are allowed). The questions presented must significantly change on each assessment occasion. Testing can be done in either a machine-based or paper-based format and must be invigilated by a tutor or mentor. There must be no communication between candidates and communication with the invigilator must be restricted to matters relating to the administration of the test.

A candidate must answer at least 60% of the questions correctly in order to obtain a pass.

If a candidate requires to be reassessed, a significant proportion of different questions must be used from all sections. The questions used in the reassessment must be significantly different from those used in the original test. A candidate must answer at least 60% of the reassessment questions correctly in order in to obtain a pass.

If the candidate chooses to sit each Outcome test separately the candidate **must pass each separate** Outcome test with a threshold of 60%.

If a candidate requires to be reassessed, a significant proportion of different questions must be used from all sections. The questions used in the reassessment must be significantly different from those used in the original test. Candidates must answer at least 60% of the reassessment questions correctly in order in to obtain a pass.

Assessment Task 2 – Practical Activity Logbook

The logbook for Outcome 3 must record successful completion of **at least five of the eight** tasks listed below, including **at least three of the first five tasks**. The tasks to be completed must be selected by the tutor from the following –

1. Troubleshoot name resolution problems
 - 1.1 A record of the tasks carried out by the candidate in troubleshooting name resolution problems including any application errors.
2. Troubleshoot network adapter configuration problems
 - 2.1 A record of the tasks carried out by the candidate in troubleshooting network adapter configuration problems including any application errors.
3. Troubleshoot LAN and Routing and Remote Access configuration problems
 - 3.1 A record of the tasks carried out by the candidate in troubleshooting LAN and Routing and Remote Access configuration problems including any application errors.
4. Troubleshoot network connectivity problems
 - 4.1 A record of the tasks carried out by the candidate in troubleshooting network connectivity caused by firewall configuration including any application errors.

Higher National Unit specification: statement of standards (cont)

Unit title: Supporting Users and Troubleshooting Desktop Applications

5. Troubleshoot problems with locally attached devices
 - 5.1 A record of the tasks carried out by the candidate in troubleshooting locally attached devices including any application errors.
6. Troubleshoot problems related to security permissions
 - 6.1 A record of the tasks carried out by the candidate in troubleshooting and answering end-user questions for application security settings, access to local and network resources and insufficient user permissions and rights.
7. Respond to security incidents
 - 7.1 A record of the tasks carried out by the candidate in troubleshooting and answering end-user questions about security incidents, virus attacks and critical updates.
8. Manage application security settings
 - 8.1 A record of the tasks carried out by the candidate in troubleshooting, configuring and managing security settings.

Practical activity logs should be based on a pro-forma given to a candidate, but must as a minimum be properly titled with the candidate's name and date, and signed by the assessor confirming that each task is the candidate's own work.

For Outcome 3 a sample of the practical tasks needs to be completed and recorded for assessment purposes, ie five out of eight. The assessor should clearly indicate in a candidate logbook the work to be undertaken by the candidate. If a candidate requires to be reassessed, a different selection of practical components must be used. At least three of the practical components in the reassessment must be different from those used in the original logbook.

Assessment guidelines

It is suggested that all the above concepts be presented and explained within the context of current real-world practice and applications.

Administrative Information

Unit code: DM34 34

Unit title: Supporting Users and Troubleshooting Desktop Applications

Superclass category: CA

Date of publication: August 2004

Version: 02

Version	Description of change	Date
02	Evidence requirements have been simplified and summarised within practical activities over Outcomes 1-3.	12/08/10

Source: SQA

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Higher National Unit specification: support notes

Unit title: Supporting Users and Troubleshooting Desktop Applications

This part of the Unit specification is offered as guidance. The support notes are not mandatory.

While the exact time allocated to this Unit is at the discretion of the centre, the notional design length is 40 hours. The suggested time allocation for each outcome (including assessment) is as follows:

Outcome 1:	15 hours
Outcome 2:	10 hours
Outcome 3:	15 hours

Guidance on the content and context for this Unit

During the delivery of this unit it is important that every opportunity is taken to introduce real-world examples, opportunities for whole-class and group discussion and practical demonstrations wherever possible. Concepts and terminology should be presented in context throughout the Unit. Video presentations should be used where appropriate for providing an alternative explanation of a difficult topic, or as a focus for class discussion or group work.

It is intended that a significant amount of time will be made available as a central part of the course for revision, tutorials and formative assessment exercises. Candidates should be strongly encouraged to undertake further reading and opportunities for individual or group research should be provided.

The most important overall emphasis should be on the relevance and currency of content in such a rapidly evolving field. It is recommended that Centres deliver this Unit within the context of modern operating systems, eg installing components, customising settings and troubleshooting applications associated with the system.

The outcomes cover elements of a GUI desktop operating system like Microsoft Windows XP, or similar GUI interfaces. Integrated applications may cover Microsoft Office suite, Lotus Smart suite or Apple Works.

This unit may assist in preparing for vendor certifications like Microsoft examination 70-272: Supporting Users and Troubleshooting Desktop Applications on a Microsoft Windows XP Operating System. Please see the separate credit transfer document which gives details of any vendor certifications that will be accepted as assessment evidence. Vendor certifications can change rapidly and candidates should be encouraged to check the current details at the relevant vendor web site to ensure all the objectives have been met. The Microsoft examination can also contribute towards the Microsoft Certified Desktop Support Technician award (MCDST).

The Outcomes in this unit have been written in a vendor-independent manner. However, the following Support Notes assume that the unit will be delivered using a desktop operating system such as Windows XP. However no restriction is placed on the operating system to be used and centres are free to choose alternative GUI operating systems, although this may require some changes in terminology.

Higher National Unit specification: support notes (cont)

Unit title: Supporting Users and Troubleshooting Desktop Applications

Outcome 1

Configure and troubleshoot applications

Candidates should be able to identify the role of a desktop support technician, the skills required to be a desktop support technician, the key terms and definitions for desktop support and be able to use the tools to provide desktop support.

The range of end-user desktop applications to configure might include Word Processing, Spreadsheet, Presentation, Database, E-mail and other integrated applications. This might include customisation of languages, accessibility options, macros, templates, standard settings for file and folder locations, security settings, protocols (IMAP, HTTP and POP3) and other operating system settings to support the installation, customisation and running of an integrated suite of applications.

Knowledge and/or skills

1. Configure a range of end-user desktop applications and apply problem solving techniques to these end-user applications
 - ◆ A candidate should demonstrate their understanding of troubleshooting end-user problems, escalate support calls and understand service level agreements (SLA). The candidate should be able to use desktop support tools like the registry, configuration commands and system recovery tools. Candidates should be able to install and consult resource kits and other online resources like knowledge bases and help files.
 - ◆ Candidates should know about different integrated office suites and versions, and be able to understand installation methodologies (manual, automated, upgrade), application code activation and integrating the office suite with other applications.
2. Configure the standard, security and other customisable options in an Internet browser and apply problem solving techniques to that Internet browser application
 - ◆ A candidate should know how to configure the general settings for the browser, including the home page, temporary files; configure the content settings, certificates and personal information contained in the Internet browser.
 - ◆ A candidate should be able to configure, troubleshoot dial-up, LAN and VPN settings in an Internet browser and configure program and web settings, including advanced settings.
 - ◆ A candidate should be able to customise the Internet browser, organise any favourite lists, set passwords on web pages, perform offline web page synchronisation and lock the toolbar.
3. Configure protocols, security and standard installation settings in an e-mail application and apply problem solving techniques to that e-mail application
 - ◆ A candidate should know how to customise, configure and troubleshoot a default e-mail application including sending/receiving email, data and newsgroups. Also how email messages are stored, the different types of email servers (IMAP, HTTP, and POP3), how to have a server email account, creating identities and repairing damaged folders.
 - ◆ A candidate should know how to import/ export data and support different file formats (wab, csv, eml, txt and html) and how to create, subscribe, and troubleshoot newsgroup problems.

Higher National Unit specification: support notes (cont)

Unit title: Supporting Users and Troubleshooting Desktop Applications

4. Configure file system access and security related settings in the operating system to support applications
 - ◆ Understand GUI architecture, environment sub-systems and user and computer settings including registry keys. A candidate should know how the application installation process works.

The content of these areas can be found in vendor curricula like the Microsoft course: 2262 Supporting users and running applications on a Microsoft Windows XP Operating System. Alternative vendor curricula can also be used.

Outcome 2

Resolve issues related to usability and application customisation

The candidate must demonstrate that they have fully understood the knowledge and/ or skills in Outcome 1 by resolving any issues related to integrated applications like Microsoft Office, Lotus Smart Suite, Internet browsers like Internet Explorer and Netscape, e-mail applications like Outlook Express, Lotus Notes and operating systems like Microsoft Windows XP.

These reported errors might include installation, configuration and customisation problems, end-user support calls for applications that have stopped responding, error messages when an application opens or during routine maintenance of the applications and operating system.

Knowledge and/or skills

1. Resolve reported error issues related to end-user application support features
 - ◆ A candidate should be able to identify, and troubleshoot all types of applications, dynamic link libraries, operating systems, and types of interfaces (command line, GUI). A candidate should be able to use Auto-recovery tools, Shadow copying tools and apply security updates.
2. Resolve reported error issues related to Internet browser support features
 - ◆ A candidate must be able to troubleshoot and answer end-user questions relating to all Internet browser settings including cookies, ActiveX controls, web content zones and security levels within the browser including security and privacy settings and resolution of error messages.
3. Resolve reported issues related to e-mail application support features
 - ◆ A candidate must be able to troubleshoot and answer end-user questions relating to a default e-mail application, including resolving errors related to data and newsgroups.
4. Resolve reported error issues related to operating system features
 - ◆ A candidate must be able to troubleshoot and answer end-user questions relating to systems architecture, the registry, environment sub-systems, and user and computer settings including resolution of errors.
5. Resolve reported error issues related to customising an end-user application
 - ◆ A candidate should be able to apply problem solving techniques to troubleshoot and answer end-user questions relating to customising any Office-type applications including language features, versions and editions and service pack updates

Higher National Unit specification: support notes (cont)

Unit title: Supporting Users and Troubleshooting Desktop Applications

6. Resolve reported error issues related to customising an Internet browser
 - ◆ A candidate should be able to troubleshoot and answer end-user questions relating to customising an Internet browser including proxy server settings, home pages, personal settings, and resolution of any errors.
7. Resolve reported error issues related to customising an e-mail application
 - ◆ A candidate should be able to apply problem solving techniques to troubleshoot and answer end-user questions relating to customising an e-mail application including server settings, identities, e-mail and private newsgroups.
8. Resolve reported issues related to customising the operating system to support applications
 - ◆ A candidate should be able to troubleshoot and answer end-user questions relating to customising the operating system to support applications including using OS Utility programs, menus and other methods of installation and scripting via a command-line interface or GUI interface.

The content of these areas can be found in vendor curricula like the Microsoft course: 2262 Supporting users and running applications on a Microsoft Windows XP Operating System. Alternative vendor curricula can also be used.

Outcome 3

Configure and troubleshoot connectivity and security settings for applications

The candidate must demonstrate that they have fully understood the knowledge and/ or skills in Outcome 1 by resolving network and security issues related to running applications like Microsoft Office, Lotus Smart Suite, Internet browsers like Internet Explorer and Netscape and e-mail applications like Outlook Express and Lotus Notes.

Identifying problems might include installation, configuration and connection problems in network connectivity to resources (protocols, firewall and proxy settings, services and security settings). These problems may be from end-users for applications that have stopped responding, error messages when an application opens or during routine maintenance or as consequence of loss of network connectivity to centrally held applications and devices such as printers, the end-user needs access to.

Knowledge and/or skills

1. Troubleshoot name resolution problems
 - ◆ A candidate should understand and troubleshoot name resolution problems (Host and NetBIOS); using tools like IPconfig, Ping, DNS, etc in relation to application errors because of network connectivity.
2. Troubleshoot network adapter configuration problems
 - ◆ A candidate should understand how TCP/IP configuration is used to connect to resources and applications in a network. A candidate should be able to determine if the name resolution problem is related to an application error.

Higher National Unit specification: support notes (cont)

Unit title: Supporting Users and Troubleshooting Desktop Applications

3. Troubleshoot LAN and Routing and Remote Access configuration problems
 - ◆ A candidate should understand LAN, and remote access configurations to resolve application errors that result from loss of network connectivity. A candidate should be able to determine if the remote access problem is related to an application error using a variety of system tools.
4. Troubleshoot network connectivity problems
 - ◆ A candidate should understand network related issues in running applications, applying service packs, security updates and virus checking applications. A candidate should be able to determine whether the network problems are related to an application error using a variety of system tools.
5. Troubleshoot problems with locally attached devices
 - ◆ A candidate should understand how applications use locally attached devices like CD-ROMs, DVDs, printers etc for installation and printing using Print management tools, help files within the application and knowledge base articles.
6. Troubleshoot problems related to security permissions
 - ◆ A candidate should understand user access and permissions relating to accessing and using applications.
7. Respond to security incidents
 - ◆ A candidate should be able to resolve issues related to virus warnings, security breaches in applications and critical error shutdown within an application.
8. Manage application security settings
 - ◆ A candidate should be able to understand application security settings in relation to user rights and permissions, and access to resources.

The content of these areas can be found in vendor curricula like the Microsoft course: 2261 Supporting Users running the Microsoft Windows XP Operating System. Alternative vendor curricula can also be used.

Guidance on the delivery and assessment of this Unit

Opportunities for developing Core Skills

This unit is likely to form part of a group award which is primarily designed to provide candidates with technical or professional knowledge and skills related to a specific occupational area. It is moderately technical in content and should not be adopted by group awards in other areas or delivered as a stand-alone Unit without careful consideration of its appropriateness.

It is a Unit which candidates are unlikely to find accessible at an introductory level; it is suggested that it be delivered only as part of an HN programme in Computing or a related area. It should be delivered in tandem with other Computing Units and opportunities for teaching and assessment integration explored.

Higher National Unit specification: support notes (cont)

Unit title: Supporting Users and Troubleshooting Desktop Applications

To minimise assessment overhead, one or more sets of closed-book objective-response questions should be used to provide evidence of candidates' knowledge for all Outcomes. It is suggested that multiple choice questions should be used as the preferred assessment method – as well as reducing the time required for assessment and marking, these reduce the need for candidates to memorise details and encourage understanding. Candidates must meet the necessary threshold to each set of questions to gain a pass. Candidates must also complete a logbook recording the practical work undertaken for each outcome.

Testing should take place in a closed-book environment where candidates have no access to books, handouts, notes or other learning material. Testing can be done in either a machine-based or paper-based format and should be invigilated by a tutor or mentor. There should be no communication between candidates and communication with the invigilator should be restricted to matters relating to the administration of the test.

If a candidate requires to be reassessed, a significant number of different questions should be used from all sections. The questions used in the reassessment should be significantly different from those used in the original test.

If an outcome has a practical component, this should be assessed by having the candidate use a logbook to record the practical tasks successfully completed. The logbook can be in paper or electronic form and should be authenticated by the tutor or mentor.

For some outcomes only a sample of the practical tasks needs to be completed and recorded for assessment purposes, ie three out of five. This is clearly indicated in the logbook instructions for the outcomes involved. Where this occurs, tutors should inform candidates of the tasks to be completed.

If a candidate requires to be reassessed, a different selection of practical components should be used. At least two of the practical components in the reassessment must be different from those used in the original logbook.

The outcomes cover elements of a GUI desktop operating system like Microsoft Windows XP. Integrated applications may cover Microsoft Office suite, Lotus Smart suite or Apple Works.

This unit may assist in preparing for vendor certifications like Microsoft examination 70-272: Supporting Users and Troubleshooting Desktop Applications on a Microsoft Windows XP Operating System. Please see the separate credit transfer document which gives details of any vendor certifications that will be accepted as assessment evidence. Vendor certifications can change rapidly and candidates should be encouraged to check the current details at the relevant vendor web site to ensure all the objectives have been met. The Microsoft examination can also contribute towards the Microsoft Certified Desktop Support Technician award (MCDST).

The content of this unit may be delivered using vendor-supplied curricula and delivery materials. As these materials are under continuous development, centres should check the appropriate vendor web site to ensure that such materials meet all the requirements for the unit.

Higher National Unit specification: support notes (cont)

Unit title: Supporting Users and Troubleshooting Desktop Applications

Open learning

If this Unit is delivered by open or distance learning methods, additional planning and resources may be required for candidate support, assessment and quality assurance.

A combination of new and traditional authentication tools may have to be devised for assessment and re-assessment purposes.

For further information and advice, please see *Assessment and Quality Assurance for Open and Distance Learning* (SQA, February 2001 – publication code A1030)

Candidates with additional support needs

This Unit specification is intended to ensure that there are no artificial barriers to learning or assessment. The additional support needs of individual candidates should be taken into account when planning learning experiences, selecting assessment instruments or considering alternative Outcomes for Units. For information on these, please refer to the SQA document *Guidance Assessment Arrangements for Candidates with Disabilities and/or Additional Support Needs*, which is available on the SQA website www.sqa.org.uk.

General information for candidates

Unit title: Supporting Users and Troubleshooting Desktop Applications

This is a Unit intended for candidates undertaking a Computing or IT-related qualification who require an understanding of Desktop Support. It is designed to develop an understanding of the issues involved in installing and administering a client operating system. On completion of the Unit you should be able to:

1. Configure and troubleshoot applications
2. Resolve issues related to usability and application customisation
3. Configure and troubleshoot network connectivity and security settings for applications

In the first part of the course, you will learn how to configure, support and apply problem-solving techniques to the operating system and desktop applications including an Internet browser and an email application.

In the second part of the course, you will learn how to resolve issues related to supporting and customising features in end-user applications, an Internet browser, email application and the operating system.

In the third part of the course, you will learn how to identify and apply problem solving techniques to troubleshoot problems with name resolution, network adapter configuration, LAN, routing and remote access and network connectivity. You will also identify and apply problem techniques to solve, problems with locally attached devices, security permissions, application security settings and security incidents.

There will be a closed-book multiple choice assessment covering all outcomes. You will be presented with a number of questions and expected to answer 60% of these correctly. You will also be expected to keep a logbook recording the practical tasks you have carried out during the Unit. You must satisfy the requirements for these assessments in order to achieve the Unit.

If an outcome has a practical component, the candidate should use a logbook to record the practical tasks successfully completed. The logbook can be in paper or electronic form and should be authenticated by the tutor or mentor. Only a sample of the practical tasks might need to be completed and recorded for assessment purposes (ie three out of five). Tutors will inform candidates of the tasks to be completed.

This unit may assist in preparing for vendor certifications like Microsoft examination 70-272: Supporting Users and Troubleshooting Desktop Applications on a Microsoft Windows XP Operating System. Please see the separate credit transfer document which gives details of any vendor certifications that will be accepted as assessment evidence. Vendor certifications can change rapidly and candidates should be encouraged to check the current details at the relevant vendor web site to ensure all the objectives have been met. The Microsoft examination can also contribute towards the Microsoft Certified Desktop Support Technician award (MCDST).

The content of this unit may be delivered using vendor-supplied curricula. As these materials are under continuous development, centres should check the appropriate vendor web site to ensure that such materials meet all the requirements for the unit.